

XX. *Descriptions of some new Species of Exotic Lucanidæ.*

By J. O. WESTWOOD, F.L.S., &c.

[Read 5th February, 1855.]

HAVING from time to time, since the publication of my memoir upon the distribution of the *Lucanidæ*, in the *Annales des Sciences Naturelles* for 1834, made drawings and dissections of various remarkable species of that family which have fallen under my notice, and which have possessed characters of an interesting description with reference to the generical division of the family, I beg leave, on the present occasion, to offer them to the Entomological Society, as a supplement to the various memoirs on those insects by Messrs. Hope,* Parry,† Saunders,‡ and myself,§ which have appeared in the *Transactions*.

SPECIES FROM SOUTHERN AFRICA.

Genus *COLOPHON*, Westw. (*Ann. Sc. Nat.* 1834.)

Of this curious type a single species has hitherto only been noticed, namely—

Sp. 1. *Col. Westwoodii*. (Plate X. fig. 1, details.)

C. Westwoodii, G. R. Gray in Griffith's *An. King.*; *Ins.* p. 534, pl. 46, f. 5; Westwood in *Ann. Sc. Nat.* 2d Ser.; *Zool.* t. 1, pl. 7, f. 5, with generic details.

Having had an opportunity of making a more minute examination of the type specimen of this insect in Mr. Hope's Collection, I am able to add the following particulars, for the most part rendered necessary by the discovery of a second still more remarkable species of the genus acquired by Mr. Hope.

The head is transverse, emarginate in the middle of the anterior margin, but with the clypeus slightly advanced over the labrum, which it conceals; it is furnished on the upper side with

* *Trans. Ent. Soc.* iii. p. 279; iv. pp. 5, 73, 182.† *Ibid.* iv. p. 55.‡ *Ibid.* ii. p. 177; iii. (N. S.) p. 45.§ *Ibid.* iv. p. 275.

three raised tubercles, one near the inner base of each mandible, and the other in the middle of the hind part of the crown of the head. The mandibles are about the length of the head, very robust, curved, each with a raised tubercle in the middle, on the upper side, and the apex broadly and transversely truncate, with two or three obtuse short teeth: the base of each is internally prolonged on the under side, next the mentum. The prothorax is broader than the elytra, the sides rounded, its widest part being behind the middle, and its hinder lateral angles prominent and acute; its upper surface is thickly covered with minute punctures. The elytra are nearly round, with the fore part truncated and straight; they are smooth and convex, and but slightly polished. The fore legs are robust, but of the ordinary form; the tibiæ with three teeth on the outside, the first and second small, the third subapical and large, as is also the apical point.

Plate X. fig. 1 *a*, head seen from above; 1 *b*, mentum and base of maxillæ from beneath; 1 *c*, maxilla and palpus; 1 *d*, anterior tibia; 1 *e*, meso- and metasternum and abdomen seen from below.

Sp. 2. *Colophon Thunbergii*, Westw. (Plate X. fig. 2.)

Niger, tenuissime punctatus; pronoto maximo, antice utrinque retuso, angulis posticis obsoletis, mandibulis magnis falcatis intus dente porrecto armatis; tibiis anticis extus curvatis, apice spatulato-dilatatis (mas).

Long. corp. lin. $11\frac{1}{2}$; mandibul. lin. $1\frac{1}{2}$; pronoti lat. lin. $6\frac{1}{2}$; elytror. lat. lin. $5\frac{2}{3}$.

Habitat in Caffraria?

In Mus. Hope.

Caput breve, transversum, angulis anticis lateralibus subobtusis, margine antico in medio subemarginato; clypeo haud prominulo, tuberculo utrinque versus basin internum mandibulæ singulæ armato, impressioneque media transverso-ovali inter oculos instructo. Oculi antice septo emarginato-incisi; mandibulæ crassæ falcatae, capite paullo longiores, apice subacutæ; intus, ante medium, dente valido infero alteroque supero porrectis armatae. Maxillæ longe ciliatae, lobis duobus acutis rectis. Mentum semicirculare, planum, punctatum. Labium internum, ciliis apicalibus ultra marginem anticum menti productis, palpis labialibus articulo ultimo pone marginem menti exserto. Antennæ articulo 1mo reliquis longitudine æquali, 2ndo minuto, clava 4-articulata. Prothorax maximus,

latior quam longus, lateribus rotundatis, convexus, medio longitudinaliter canaliculatus, antice utrinque retusus, nitidus, tenuissime punctatus. Scutellum breve. Elytra semi-ovata, prothorace angustiora, convexa, lateraliter marginata, lævia, sub lente tenuissime punctata; singulo striolis duabus subobliquis inter scutellum et humeros. Pedes crassi; antici femoribus brevibus intus sinuatis, tibiis valde curvatis, basi intus parum dilatatis, apicibus subspatulatis bidentatis. Pedes 4 postici longitudine mediocres, tibiis extus pone medium spina unica instructis, apicibus externis acute spinosis. Prosternum simplex, mesosternum obliquum, haud productum.

Plate X. fig. 2, *Colophon Thunbergii* slightly magnified; 2*a*, mentum and maxillæ in situ; 2*b*, eye partially incised by the canthus; 2*c*, 2*d*, maxilla seen from above and beneath, showing its component parts; 2*f*, base of fore leg; 2*g*, prosternum and base of mesosternum; 2*h*, pro- meso- and metasternum, and hind part of the body, seen from beneath.

I have seen but a single specimen of this very remarkable insect, which entirely recedes from the general appearance of the species of this family, and still more strongly than the type recalls to mind the genus *Lethrus*. The specimen in question is certainly a male, and it might perhaps, at first sight, be supposed to be the opposite sex of the specimens of *Col. Westwoodii*, with which we are acquainted; but the structure of the head and mandibles of the latter, as well as the large pronotum, seem sufficiently to prove that they also are males of a distinct species.

SPECIES FROM ASIA.

Sp. 3. *Lucanus Thibeticus*, Westw. (Plate X. fig. 3.)

Elongatus, subparallelus, convexus, niger, elytris subcastaneis nitidis, in medio subæneis, capite et pronoto tenuissime granulatis, mandibulis planis, longe porrectis apice acutis, dimidio apicali serrato; pedibus gracilibus (mas).

Long. corp. lin. 14; mandib. lin. 4.

Habitat in Thibeta.

In Mus. Parry.

Caput subquadratum, lateribus fere rectis; antice late emarginatum; supra tenuissime granulatum: mandibulæ maris capitis longitudine, porrectæ, planæ, apice parum elevatæ, dimidio apicali intus obtuse serratæ; ante medium profunde emarginatæ, basi que obtuse dentatæ. Antennæ articulo 6to

intus acuto, 7mo acuto, seta longa instructo, tribus apicalibus longe perfoliatis. Oculi septo parum incisi. Mentum subtriangulare, antice truncato-emarginatum. Prothorax transversus, capite latior, lateribus fere rectis, dorso tenuissime granulato medio sublævi. Elytra elongata, latitudine prothoracis, lævia nitida. Pedes graciles, tibiæ anticæ intus in medio subsinuatæ, extus serrulatæ denticulisque 5 majoribus, dentibusque duobus apicalibus armatis; intermediæ in medio extus spina minuta armatæ; posticæ simplices. Prosternum angulatum, apice obconicum.

Plate X. fig. 3, *Lucanus Thibeticus*, magn. nat.; 3 a, antenna; 3 b, mentum; 3 c, eye seen sideways; 3 d, prosternum seen beneath; 3 e, pro- and mesosterna seen sideways.

This species bears a certain amount of resemblance to the Madagascar species *L. serricornis*, and it is remarkable for its nearly parallel form and slightly æneous glossy elytra.

Sp. 4. *Lucanus biplagiatus*, Westw. (Plate X. fig. 4.)

Niger, capite postice obscure rufo, pronoto fulvo-rufo, medio lateribusque obscuris; elytris nigris, singulo plaga lata laterali fulvo-rufa; capite utrinque pone oculos tuberculo armato, mandibulis maris latis, capite brevioribus intus basi obtuse denticulatis, apice acuto, tibiis 4 posticis ante apicem constrictis (mas et fem.)

Long. corp. maris lin. 13; mandibul. lin. $2\frac{1}{2}$.

Habitat in Thibeta.

In Mus. Brit., Parry et Westwood.

Mas.—Caput prothorace parum angustius, transversum, margine antico in medio profunde emarginato, angulis anticis oblique rotundatis, lateribus pone oculos tuberculo obtuso instructis; fuscum sub lente granulosum, versus latera punctis rotundatis. Mandibulæ latæ capite breviores, apice acutæ curvatæ, basi intus dentibus tribus obtusis armatis. Labrum inter basin mandibularum porrectum. Oculi septo fere dimidiatim divisi. Mentum breve, subtriangulare, antice subemarginato-truncatum. Caput infra pone oculos, tuberculis striolisque obliquis profunde impressis notatum. Antennæ 10-articulatæ, articulo 7mo intus acute producto et 8vo fere dimidio minori. Prothorax transversus, lateribus subrectis, angulis posticis oblique rotundatis; supra lævis, nitidus, lateribus punctis rotundatis, fulvo-rufus, medio irregulariter

lateribusque nigris. Elytra prothoracis latitudine, lævia, nitida, nigra, singulo fascia lata (versus humeros attenuata), rufo-fulva. Pedes fulvo-rufi, femorum apice, tibiæ basi et apice, tarsisque nigris; tibiæ anticæ extus serrulatæ, denticulisque circiter 8 majoribus dentibusque duobus apicalibus armatæ; intermediæ extus in medio dente minuto, et ante apicem constrictæ, angulo apicali externo acuto; posticæ extus inermes, intus prope apicem subconstrictæ, tuberculoque obtuso ante constrictionem instructæ. Corpus infra nigrum, abdomine et lateribus metasterni piceis.

Fœmina.—Nigra, pronoto utrinque vitta lata, elytrisque plaga lata laterali rufo-fulvis; capite supra rugoso; angulis anticis oblique truncatis, tuberculo pone oculos parum distincto; pronoto punctatissimo, punctis versus latera majoribus; elytris punctatissimis, dorso versus suturam lævi; pedibus nigris, tibiis quatuor posticis ante apicem haud constrictis, singula prope medium spina minuta externe armata.

Plate X. fig. 4, *Lucanus biplagiatus*; mas, natural size; 4 a, half of the head seen beneath, without the mandibles, showing the lateral impressions behind the eyes; 4 b, mentum; 4 c, one of the eyes seen laterally; 4 d, antenna.

This species is remarkable, not only for the peculiarity of its coloration, but also from the curious manner in which the four posterior tibiæ are constricted just before the apex,—in which respect it agrees with *Lucanus inquinatus*, figured in my Cabinet of Oriental Entomology, pl. 8, fig. 4, of which species both sexes are contained in the Cabinet in the British Museum. It is indeed unquestionably closely allied to that species, but I should conceive the striking difference in the structure of the mandibles of the males, as well as the colouring, must be assumed to indicate a decided specific distinction.

Sp. 5. *Odontolabris Evansii*. (Plate X. fig. 5.)

Niger, subnitidus, capite antice concavo, lateribus pone oculos tuberculo lato instructis; mandibulis capite paullo longioribus falcatis, apice truncato-denticulatis; pronoto latissimo, angulis posticis emarginatis; tibiis anticis extus 6-dentatis, tarsis subtus spongiosis tibiisque posticis ad apicem pilis fulvis striatis (mas).

Long. corp. lin. 15; mand. lin. 5.

Habitat in China.

In Mus. Evans.

An var. *Odont. emarginatus* (Reiche), W. W. Saunders, Ent. Trans. N. S. iii. p. 49?

Mas.—Niger, subnitidus, præsertim in disco elytrorum. Caput latum, antice concavum, margine antico late emarginato, lateribus pone oculos tuberculo magno instructis; angulis anticis oblique truncatis; vertice sub lente tenuissime granulato, punctis nonnullis majoribus prope oculos. Mandibulæ capite parum longiores, falcato-curvatae, apice oblique truncato, denticulato basique obtuse dentato. Antennæ articulo 6to subquadrato, intus in angulum parvum setiferum producto; 7mo paullo majori, intus suboblique truncato; 8vo transverso, intus oblique truncato; 9no subacuto; 10mo subrotundato. Oculi septo in duas partes divisi. Caput infra fere planum, genis parum concavis et profunde punctatis. Prothorax capite paullo latior, lateribus et postice tenuissime marginatus, disco subgranulato, punctoque majori in medio laterali, angulis posticis profunde emarginatis, emarginatura spina antice et postice terminata. Elytra sub lente vix granulosa; convexa, parum nitida; prothorace paullo angustiora. Pedes longi, antici tibiis sat latis, extus 6-dentatis, apice intus setoso, spinaque brevi curvato armato: tibiæ intermediæ et posticæ extus inermes apice externo acuto, intus ad apicem striolis setarum lutearum instructæ, tarsi subtus luteo-spongiosi. Prosternum postice porrectum, subacutum, mesosternum inerme obliquum.

Plate X. fig. 5, *Odontolabris Evansii* of the natural size; 5 a, mentum; 5 b, antenna; 5 c, pro- and mesosterna.

I have only seen a single specimen of this species, represented in the plate, in the Collection of W. F. Evans, Esq., M.E.S. It is certainly very nearly allied to *Odontolabris emarginatus*; but, as a large and fully developed example of the male of that species was selected for the figure given in a former part of these Transactions, I can hardly think that the present insect can be considered as a modification of the male form of *O. emarginatus*, and shall, therefore, regard it as distinct until its identity be proved by a series of links establishing the chain between the two forms.

Sp. 6. *Cladognathus piccipennis*. (Plate X. fig. 6.)

Niger, sub lente tenuissime granulatus, clytris obscure castaneis, corpore infra cum pedibus magis castaneis; mandibulis valde

elongatis, intus denticulatis, denteque majori inter basin et medium posito, prothoracis angulis posticis spina parva porrecta armatis, tibiis anticis extus serrulatis denticulisque majoribus, dentibusque duobus apicalibus armatis (mas).

Long. corp. lin. 14; mandib. lin. 8.

Habitat in China vel Thibeta.

In Mus. D. Parry.

An var. *Cladogn. gracilis*, W. W. Saunders, Ent. Trans. N. S. iii. p. 47?

Mas.—Oblongus, gracilis; mandibulis, capite et pronoto nigris et sub lente tenuissime granulatis, granulatis valde contiguis. Caput transversum, lateribus fere rectis, angulis anticis sub-oblique subtruncatis. Labrum porrectum. Mandibulæ valde elongatæ, graciles, apice acutæ; intus prope basin dente unico, margineque interno denticulis novem vel decem armatis. Antennæ articulo 7mo intus in angulum acutum setiferum producto, 8vo et 9no intus subobtusis, mentum latum antice multo angustius et in medio emarginatum. Oculi partim septo incisi. Prothorax transversus, capite parum latior, lateribus subrotundatis, angulis posticis in dentem parvum productis. Elytra prothoracis latitudine, angulis humeralibus acutis; sub lente punctis minutis oblongis ad basin impressa, dimidio postico fere lævi, nigra, obscure castaneo (præsertim pone medium) tinctæ. Pedes graciles, tibiæ anticæ extus serrulatæ denticulis majoribus æquidistantibus dentibusque duobus apicalibus armatæ, tibiæ intermedie spina distincta extus in medio armatæ; posticæ tuberculo minutissimo medio. Corpus infra et pedes castanei, his supra obscurioribus; tarsorum articulis 4 basalibus dense luteo-setosis.

Plate X. fig. 6, *Cladognathus piceipennis*, of the natural size; 6 a, terminal joints of the antennæ; 6 b, mentum; 6 c, eye partly incised by the septum.

This species is closely allied to *Cl. Spencii* (Hope), and especially to *Cl. gracilis*, of which last it may possibly be regarded as an extreme form of the male; but, as in the last species, until connecting links be produced, I must retain the opinion of the propriety of regarding it as a distinct species.

SPECIES FROM SOUTH AMERICA.

The geographical distribution of the *Lucanidæ* in South America is extremely interesting, exhibiting to us a series of types quite peculiar to that portion of the world. Whilst North America presents an European tendency in possessing species of such genera as *Ceruchus*, *Platycerus*, *Lucanus* proper (*L. Elephus*, *L. capreolus*, (*Dama*, F.) *L. lentus*), and *Dorcus* (*D. parallelus*), South America* maintains a far more exclusive character in its representatives of this family. The *Leptinopteri* (Hope, *Psaliceri* Dej., *Psolidostomi* Burm.), *Macrocrates* (*M. bucephalus*, Kl.), *Scortizus* (Westw.), and the *Sclerostomi* (Burm.), are exclusively South American types of isolated structure. *Hexaphyllum Brasiliense* and *Westwoodii*, it is true, approach nearly to the Australian *Syndesus cornutus*, and the South American *Chiasognathus*, *Sphenognathus* and *Orthognathus*,† are most nearly allied to *Rhyssonotus*, as is also *Pholidotus* to *Lamprima*.

We thus arrive at the remarkable conclusion that, in this family, the productions of South America are most nearly allied to those of Australia,—a fact, however, which is confirmed by various other instances, especially in groups of anomalous form, such as the *Rhipiceræ*, *Pseudomorphæ* and *Heleæi* among the *Coleoptera*, and the *Thynnidæ* among the *Hymenoptera*.

Another Brazilian genus belonging to the *Lucanidæ*, of considerable interest and great rarity, is

Streptocerus ;

the only known species of which, *S. speciosus*, a native of Chili, is described by M. Léon Fairmaire in the *Annales de la Soc. Ent. de France*, 1850, p. 53, pl. 1, f. 2, the male of which is in the Collection of the Marquis de la Ferté, and the female in that of M. Chevrolat. A second specimen of the female was brought from Chili by J. Miers, Esq., F.R.S., &c., who has kindly placed it in my hands for examination. A good figure of the male having been given by M. Fairmaire, I have not thought it necessary to refigure it; but, as the representation of the head of the female, given by M. Fairmaire, is inaccurate in several respects, and as he has given no analysis of its organs, I have represented them in the accompanying figures (Pl. XI. fig. 1, and details). The antennæ in this sex (fig. 1) are represented by M. Fairmaire as

* *Dorcus*, according to Burmeister, is found in all quarters of the world except South America.

† Burmeister suggests that *Orthognathus albo-fuscus* of Blanchard (D'Orbigny, *Voy. Am. Mérid. Ins.* pl. 12, fig. 7) is probably a *Sclerostomus*.

having only a 3-jointed club, whereas it is distinctly 4-jointed. the basal joint of the club being even slightly longer than the following. The labrum is small, oblong, slightly porrected. In fig. 1, the head is purposely represented raised in front, to show the labrum extended between the base of the mandibles; in fig. 1 *a*, the setose extremity of the labrum is shown rather too much deflexed, its natural position in repose being to rest upon the internal flattened base of the closed mandibles; it is strongly punctured, bristly, and armed at each interior angle with a thick fascicle of setæ. This, I presume, is the part described by M. L. Fairmaire as “l'épistome, presque perpendiculaire, en forme de languette, légèrement creusé en cuillère à son extrémité, qui se termine par une petite pointe;”—a description not applicable to the female, being probably made from the male. The maxilla, of which M. L. Fairmaire gives no description, are, in the female (fig. 1 *b*), armed with a curved hook at the extremity of the inner lobe; the male, as in the *Lamprimæ*, &c., have this part most probably unarmed. The lower lip and its appendages, also undescribed by M. Fairmaire, are especially interesting, as disagreeing with that of the majority of the family, the lobes of the labium and the base of the labial palpi arising from the extremity of the mentum (fig. 1 *c*). The pro- and meso-sternal processes (fig. 1 *d*) are simple.

M. L. Fairmaire, without noticing the above peculiarities, upon which the relation of the groups of *Lucanidæ* are so greatly dependent, has, with great tact, asserted the relation of the genus *Streptocerus* with the Australian *Lamprimæ*, with which, indeed, it agrees in the porrected labrum and labial palpi, and uncinated maxillæ of the female; it especially, however, differs from that genus in the distinct and porrected labrum, 4-jointed club of the antennæ, and other characters. In the distinct labrum, and in the porrected labium and labial palpi affixed at the apex of the mentum, the genus also approaches *Sinodendron*, which, in these respects, is thus proved neither so exceptional nor so far removed from the terminal *Lucanidæ* as is indicated by Professor Burmeister in his table of the family (Handb. d. Ent. v. p. 315).

Sp. 7. *Sclerostomus hastatus*. (Plate XI. fig. 2.)

Obscurus, capite piceo, pronoto elytrisq; subcastaneis, his costis duabus castaneo-rufis nitidis instructis, sutura fasciæque transversa submedia nigra notatis; mandibulis elongatis compressis, apice digitato, 4-denticulatis, prothoracis angulis anticis extus dilatatis (mas).

Long. corp. lin. 9; mandib. fere lin. 2; lat. prothoracis antice lin. 4.

Habitat in Americæ meridionalis partibus centralibus.
In Mus. Deyrolle, Parisiis.

Mas.—Caput latum, transversum, antice late emarginatum, angulis anticis oblique truncatis, et in lobum depressum utrinque dilatatis, postice oculos dimidiatim dividentibus; vertice utrinque tumido discoque utrinque pone oculos impressione rotunda notato. Mandibulæ capite paullo longiores subrectæ, apice subauriculatæ vel potius subdigitatæ, basi intus in dentem obtusum productæ. Maxillæ lobis elongatis obtusis dense setosis. Mentum transversum, antice parum emarginatum, ciliatum, angulis anticis lateralibus rotundatis. Labrum lobis duobus gracilibus setosis. Palpi labiales graciles, articulo 1mo longo, 2do breviori, 3tio paullo crassiori. Antennæ breves, articulis 2-7 fere æqualibus, 8vo, 9no et ultimo intus acutis. Prothorax transversus, antice capitis latitudine, postice sensim angustior, medio marginis antici elevato et paullo prominenti, disco in medio canaliculato impressioneque profunda rotunda inter medium et angulos anticos, his porrectis, angulis posticis acutis. Elytra prothorace paullo angustiora, angulis anticis acuminatis disco subconvexo, singulo costa valida nitida longitudinali submedia instructa striisque simplicibus impressis, interstitiis inter strias punctatis. Pedes graciles, tibiæ anticæ serrulatæ, dentibus 7 vel 8 majoribus (sensim versus basin magnitudine decrescentibus) armatæ, intermediæ spina parva media alterisque 2 vel 3 minutis inter medium et basin; posticæ spina media unica; tarsorum articulis subtus setosis. Corpus subtus nigrum, nitidum, punctatum, prosterno punctatissimo.

Plate XI. fig. 2, *Sclerostomus hastatus* slightly magnified; 2a, the head seen beneath; 2b, maxilla; 2c, mentum seen from within the mouth; 2d, prosternum seen sideways.

This species is remarkable, not only on account of the curious form and sculpture of its head, mandibles and prothorax, but also for its colouring (which is quite unusual in the present family), and for the strong costation of its elytra. It appears to be closely allied to *Scl. plagiatum*, Burm. Handb. d. Ent. v. 425. I have seen but a single specimen of the male, in the rich Collection of M. Deyrolle, of Paris.

Sp. 8. *Sclerostomus Neotragus*, Westw. (Plate XI. fig. 3.)

Niger, opacus; capite transverso, utrinque pone oculos dente parvo armato; mandibulis porrectis, fere rectis, apice auriculatis, pronoto cucullato (mas).

Long. corp. lin. 5; mandib. lin. 1.

Habitat in Brasilia, St. Paul.

In Mus. Deyrolle, Parisiis.

Caput transversum, tenue varioloso-punctatum, medio verticis minus punctato et excavatione rotunda haud profunda impresso, tuberculo elevato utrinque prope basin mandibularum, angulis anticis oblique truncatis; lateribusque pone oculos spina parva utrinque porrecta armatis. Oculi cantho dimidiatim incisi, antennarum clava 3-articulata. Mandibulæ porrectæ fere rectæ, capite paullo longiores; supra acute carinatae, apicibus dilatatis crassis auriculatis, dentibus apicalibus intus extensis. Maxillæ maris lobis duobus longe ciliatis, interno simplici. Mentum transversum, angulis anticis rotundatis; laciniarum labii apicibus, articuloque ultimo palporum labialium tantum expositis. Pronotum capite paullo latius et longius, angulis anticis obtusis; lateribus pone medium paullo dilatatis; disco tenuissime punctato, fossula sat profunda mediana longitudinali; margine antico cucullato; *i. e.* in medio in cornu porrecto producto, apice nitido. Elytra brevia, apice rotundato; singulo striis circiter 7 punctorum parvorum irregulariter digestis. Pedes mediocres: tibiæ anticæ serrulatæ, dentibusque 6 majoribus armatæ: intermediae dentibus tribus, 3tio majori in medio tibiæ posito: posticæ dentibus duobus. Corpus infra nitidum, punctis minutis vage sparsis notatum.

Plate XI. fig. 3, *Sclerostomus Neotragus*, magnified; 3 a, natural size; 3 b, head and front of prothorax seen sideways; 3 c, maxilla; 3 d, mentum seen within, showing the labium and labial palpi.

This remarkable species is unique, in the Collection of M. Deyrolle, of Paris, who has on all occasions allowed me an unlimited use of any of his unique and interesting species. It agrees with the Chilian species *Dorcus cucullatus* of Blanchard, in the cucullated front of the pronotum, but differs in the form of the mandibles, unicolorous surface of the body, &c.

Sp. 9. *Sclerostomus Ditomoides*, Westw. (Pl. XI. fig. 4.)

Ater, opacus; capite vage punctato, utrinque biangulato, mandibulis maris curvatis, fere capitis longitudine curvatis dentatis; pronoto transverso in medio longitudinaliter subcanaliculato punctatissimo, elytris punctis minutis in strias dispositis.

Long. corp. lin. 5; mandib. lin. 1.

Habitat in Brasilia, apud Rio Janiero.

In Mus. D. Miers.

Parvus, sub-depressus, sub-parallelus, opacus. Caput transversum, in medio subplanum obliquum, disco varioloso-punctato, punctis versus latera postica majoribus, margine antico emarginato, utrinque ad basin mandibularum tuberculo elevato nitido instructo, angulis anticis obliquis; postice in canthum angulatum oculorum productis, lateribus capitis pone oculos etiam in angulum porrectis: oculi septo dimidiatim incisi. Labrum parvum, semicirculare, ciliatum, perpendiculare, supra clypeo occultum. Mandibulæ fere capitis longitudine curvatæ, apice subtridigitatæ, medioque intus spina obtusa brevi armatæ. Maxillæ parvæ, lobis simplicibus longe penicillatis, interno inermi. Mentum transversum, angulis anticis rotundatis; laciniarum labialium penicillis palporumque articulis duobus apicalibus detectis. Prothorax transversus, tenuissime punctatus; capite latitudine paullo latiori, angulis anticis porrectis obtusis; posticis obliquis dorso in medio subcanaliculato, antice in tubercula dua parum distincta elevato, impressionibusque duabus dorsalibus parvis transversis vix distinctis notato. Scutellum breve nitidum. Elytra opaca, basi punctata punctisque minutis in strias 6 longe ante apicem oblitteratas dispositis. Pedes graciles, tibiæ anticæ serrulatæ spinisque sex acutis armatæ; intermediae spina mediana alterisque 2 vel 3 sub-basalibus minoribus; posticæ spina mediana alteraque sub-basali vix distincta armatæ. Corpus infra nitidissimum, vix punctatum. Prosternum simplex.

Plate XI. fig. 4, *Sclerostomus Ditomoides*, magnified; 4 a, maxilla; 4 b, mentum and labial palpi; 4 c, simple prosternum.

I have seen only a single specimen of the male brought from Brazil by J. Miers, Esq., F.R.S., &c.

Sp. 10. *Sclerostomus costatus*. (Pl. XI. fig. 5.)

Supra opacus, piceo-niger, pronoto et elytris obscure sanguineo-notatis; punctatus, capite tuberculo nitido utrinque ante oculos posito; pronoto canali lato medio parum profundo, et utrinque impressionibus duabus rotundatis, antica minus distincta, impresso; medio marginis antici in mare in tuberculum elevato; elytris costatis, costis interruptis, 2da e sutura crassiori; interstitiis seriatim punctatis; tibiis anticis spinis 6 parvis obtusis; intermediis 1 media alterisque duabus subbasalibus; posticis 1 media alteraque minutissima subbasali armatis.

Long. corp. lin. .

Habitat in Brasilia.

In Mus. Miers et Hope.

Sclerostomus costatus, Burmeister, Hand. d. Ent. vol. v. p. 426; Hope, Ca. Lucanidæ, p. 27 (*Sclerognathus c.*)

Plate XI. fig. 5, *Sclerostomus costatus*, fem. magnified; 5 a, head and pronotum of the male; 5 b, mandible of the male; 5 c, maxilla of male; 5 d, maxilla of female; 5 e, mentum and palpi.

The male of this curious Brazilian insect is distinguished by the cucullated front of the prothorax, which in both sexes is deeply impressed along the centre, with lateral circular impressions. I am indebted to Mr. Miers for an opportunity of describing this species, which was collected by him during his residence in Brazil. It will be observed, from the figures of the maxillæ, that the inner lobe in both sexes is armed with an acute curved spine, which would remove it from the section of the family in which the genus is placed by Burmeister.

Sp. 11. *Sclerostomus femoralis*. (Pl. XII. fig. 9 a, 9 b.)

Dorcus femoralis, Guérin-Meneville, Rev. Zool. 1839, p. 303, (descriptio trivialis, structura insecti omnino neglecta).

Lucanus rubripes, Hope, Cat. Lucan., p. 26; Burmeister, Handb. d. Ent. v. p. 424 (*Sclerostomus r.*)

This interesting species from the Straits of Magellan is placed by Burmeister as one of the two species of his first section of the genus *Sclerostomus*—his other species being the *L. Darwinii* of Hope, which is so closely allied to the former that they are regarded as probable varieties of one species. Hence there seems

to be no doubt that these are to be regarded as the types of the genus *Sclerostomus*; which is important to be borne in mind when the structure of the maxillæ is examined. The *Lampri-madæ* of Burmeister, in which sub-family the genus is placed by that author, is especially distinguished by the free upper lip, and by the membranous inner lobe of the maxillæ of the males, whilst it is corneous and uncinated in the female; but in the species before us the male, whilst it has the upper lip large, free and horizontally porrected, has the inner lobe of the maxillæ uncinated, which character would remove the species (and of course the genus also) to the sub-family of *Figulidæ* of Burmeister, in which the inner lobe of the maxillæ of both sexes is uncinated. In the males of *Sc. hastatus*, *Neotragus* and *Ditomoides*, as we have seen above, this inner lobe of the maxillæ is simple, straight and ciliated, but in the *Sc. costatus* it is, as in *Sc. femoralis*, uncinated in both sexes. These considerations will probably require a modification of the genus, and possibly the establishment of a new genus amongst these small South American *Lucanidæ*.

Plate XII. fig. 9 *a*, represents the mandible of the male of *Sc. femoralis*, and fig. 9 *b*, the maxilla of the same sex.

Sp. 12. *Scortizus maculatus*, Klug. (Plate XI. fig. 8 *a*—8 *c*.)

Lucanus maculatus, Klug, Specimen alt. Ent. Bras. in Nova Act. xii. 2, 432; Burmeister, Handb. d. Ent. v. p. 422 [*Scortizus m.*]

Pholidotus irroratus, Hope, Trans. Zool. Soc. i. 100, pl. 14, fig. 3.

Scortizus irroratus, West. Annales Sci. Nat. Sec. Ser. i. 119.

The female of this pretty little insect is figured by Mr. Hope from my drawing in the Transactions of the Zoological Society, together with the structural details, whence it appears that the labrum is small, semicircular and ciliated, and the inner lobe of the maxillæ uncinated and horny. Both sexes were brought from Brazil by J. Miers, Esq. F.R.S. (to whom I am indebted for a specimen of the female). The male has the head and prothorax considerably wider than in the female, and the hind legs are less strongly spined. The mandibles in this sex (fig. 8 *a*) are as long as the head and acute, whilst they are much shorter in the female (fig. 8 *b*), with a strong tooth on the inside. The maxillæ of the male (fig. 8 *c*) has the inner lobe simple and penicillated, whilst it is uncinated and horny in the male. The eyes are but slightly incised in the anterior part by the canthus.

SPECIES FROM NEW HOLLAND AND NEW ZEALAND.

Sp. 13. *Cacostomus squamosus*. (Pl. XI. fig. 6 ♂, fig. 7 ♀.)

The first notice of this interesting genus was given by Mr. Newman, in Charlesworth's Magazine of Natural History, vol. iv. p. 364, July, 1840, where it was thus characterized from the male sex alone:—"Dorci facies at corpore squamoso et mandibulis aliter dentatis plane discrepat."

In the English observations, the small anteriorly angulated head, the entirely divided eyes, the form of the mandibles, the ordinarily-formed ten-jointed antennæ, the convex prothorax, with crenated lateral margins, and the pilose undersurface of the joints of the tarsi were noticed.

The type specimen was received by Mr. Bowerbank from Sydney, but Mr. Newman considered it to be a native of Assam, or some other neighbouring region of continental Asia.

In the Annals of Natural History, vol. 8, p. 124 (October, 1841), I published the descriptions of both sexes of the same insect from the collections of Messrs. Melly and Curtis (by both of whom it had been received from Australia), under the name of *Lepidodes rotundicollis*, with the following generic character:—

Corpus punctatum, punctis albido-squamosis. Caput maris magnum quadratum; mandibulis crassis porrectis, subrectis, intus et ad apicem valde dentatis. Prothorax subrotundatus lateribus crenulatis; oculis omnino septatis; antennarum clava triphylla; tibiæ anticæ 5-dentatæ, 4 posticæ inermes.

The male is 14, and the female 10 lines long.

The original specimen described by Mr. Newman having been acquired by the British Museum Collection, I have been enabled to ascertain its identity with the insects described by myself, the relationship of the two insects having been suggested by the late Dr. Erichson in Wiegmann's Archives for 1842, ii. 234, and referred to by Dr. Burmeister, Handb. d. Ent. v. p. 362, with an incorrect reference to the Annals, instead of the New Series of the Magazine of Natural History. In the squamose surface of the body, as well as in its elongated limbs, this genus approaches *Pholidotus* and *Scortizus irroratus*, but both these genera have the mando of the maxilla hooked. It also bears some relationship to *Calcodes æratus*, W. Perhaps, however, its nearest ally is *Rhyssonotus*, K., which has the eyes entirely divided, as well as the mando in both sexes simple; but that genus differs at once in the velvet-like upper surface of the body, the structure of the man-

dibles, and especially the gradually-formed six-jointed club of the antennæ.

No figures having been hitherto published of the genus, I have added outlines of both sexes and details in the accompanying plate.

Fig. 6, *Cacostomus squamosus*, male, mag. nat. 6a, maxillary palpi, mentum and labial palpi of the male.

Fig. 7, female, mag. nat., 7 a, mandibles; 7 b, maxilla.*

Sp. 14. *Sclerostomus caviceps*, Westw. (Plate XII. fig. 6, mas; fig. 7, fœm.)

Piceus, obscurus, capite et pronoto maris nitidioribus, irregulariter punctatissimis, elytris costis tribus elevatis parum distinctis, capite maris magno profunde excavato, pronoto antice dilatato subcucullato.

Long. corp. maris cum mandibulis lin. 8; fœminæ 6.

Habitat in Nova Zealania.

In Mus. Westw.

Mas.—Piceus vel potius nigro-castaneus, punctis luteo-villosis.

Caput magnum, latitudine elytrorum glabrum, punctatissimum, vertice excavatione magna, totum occiput includente, notato, tuberculo utrinque prope basin mandibularum terminato; angulis anticis lateralibus rotundato-deplanatis oculos fere omnino cantho dividens; lateribus pone oculos rotundato-dilatatis. Labrum parvum, transversum, angulis lateralibus rotundatis, ciliatum punctatum. Mandibulæ crassæ curvæ, capite paullo breviores compressæ, margine infero dentibus tribus obtusis; supero in dentem latum apicalem ampliato. Antennæ breves, clava 3-articulatæ; maxillæ parvæ setosæ, mandone inermi. Mentum semicirculare, grosse punctatum, Prothorax magnus, antice dilatatus, margine antico porrecto elevato, punctatissimus, dorso in medio longitudinaliter impressus, impressione punctis majoribus et fere conjunctis, lateribus subsinuatis; angulis anticis et posticis vix acutis. Scutellum parvum, semicirculare. Elytra brevia, subconvexa, punctatissima, punctis interdum confluentibus, angulis anticis lateralibus extus paullo porrectis, singulo costis tribus parum, elevatis et vix distinctis (præsertim exterioribus). Pedes medioeres, tibiæ anticæ 7-denticulatæ; intermediæ dente

* I have not had an opportunity of examining the maxilla of the male, but as that of the female is simple, without a horny hook, I have no doubt that of the male is equally unarmed.

minuto medio, posticæ in medio inermes. Corpus et pedes subtus picea, punctata.

Fœmina minor; capite et pronoto magnitudinis ordinariæ, vertice depresso, et utrinque tuberculo magis distincto instructo.

Mandibulæ parvæ, apice acutæ, denteque unico intus armatæ.

Prothorax lateribus rotundatis, angulis anticis acutis.

Both sexes of this curious species from New Zealand are contained in my own collection. The male is especially remarkable for the broad prothorax, which is porrected in front, and the wide head with a deep circular excavation in the middle. The genera *Scortizus* and *Sclerostomus*, to which this species is most nearly allied, are known only as natives of South America. The general character of the species before us, however, as well as the character of its maxillæ, varying, as it does, in the opposite sexes, seems fully to warrant its reference to the latter of these two genera, thus establishing another instance of the geographical relationship between the objects of South America and Australasia which has been alluded to above.

Plate XII. fig. 6, *Sclerostomus caviceps*, mas, mag. auct.; fig. 6 a, maxilla; 6 b, eye nearly divided by the canthus; 6 c, labrum; 6 d, mentum. Fig. 7, ejusdem fœmina, magn. auct.; fig. 7 a, maxilla.

The New Zealand genus *DENDROBLAX*, described by Mr. A. White in the "Zoological Volume of the Voyage of the Erebus and Terror," is composed of a single species (*D. Earlianus*, Wh.) and may be regarded as an obscure representative of *Sphenognathus* with the mouth of *Sinodendron*. The species (of which I possess both sexes) is remarkable for having winged males and apterous females.

LISSOTES, Westw.

Subgenus novum, *Figulo Nigidioque* affine, mandone maris uncinato, oculis vero integris rotundatis vel subintegris scutelloque minuto subtrigono. Labrum subporrectum, in medio tuberculo conico instructum. Mentum transversum, angulis anticis lateralibus rotundatis margine antico haud emarginato. Labii lacinia elongatæ, setosæ. Caput transversum, antice late concavum, lateribus haud complanato dilatatis; oculi rotundati, vix cantho antice et postice incisi.

Prothorax margine antico in medio elevato et subporrecto, disco in medio canaliculato vel subdepresso. Tibiæ anticæ extus 6-dentatæ. Prosternum simplex, haud retro porrectum.

Sect. I.—Mandibulæ maris graciles falcatæ, apice tridentatæ.

Sp. 15. *Lissotes Menalcas*. (Plate XII. fig. 1 and details.)

Niger, nitidissimus, pronoti disco in medio depresso, parum punctatus, elytris striis lævibus impressis.

Long. corp. lin. $11\frac{1}{2}$ (fere 1 unc.).

Habitat in Nova Hollandia. D. Verreaux.

In Mus. Chevrolat (etiam in Mus. Brit.—Nova Zelandia an recte?).

Corpus oblongum, convexum, nitidissimum, parce punctatum; capite lato, prothorace pone medium latiori, elytrisque latitudine æquali. Caput transversum latum, angulis anticis obtusis, vertice late concavo; punctatum, oculi laterales integri rotundati, antice et postice vix cantho incisi, lateribus capitis pone oculos haud dilatatis. Mandibulæ maris capitis longitudine curvatæ, ad basin dente crasso armatæ, apice elevato compresso tridentato. Antennæ breves, clava mediocri, 3-articulata. Prothorax transversus, capite parum latior, præsertim pone medium, medio disci elevato sub-canaliculato, margine antico in tubercula duo elevato; utrinque pone medium impressione rotunda lævi notatus. Elytra brevia latitudine prothoracis, convexa, singulo striis tribus longitudinalibus lævibus, spatiis interstitialibus punctatis. Tibiæ anticæ extus 6-dentatæ, 4 posticæ in medio 1-dentatæ. Fœmina ignota.

This very interesting species forms part of the fine collection of M. Chevrolat of Paris, to whom I am greatly indebted for permission to examine many of the rare species which he possesses. It is remarkable for the subcucullated pronotum and the concave crown of the head, and its glossy black colour. A specimen is also contained in the British Museum collection, which Mr. A. White informs me was received from Captain Parry as a native of New Zealand, whilst M. Chevrolat assures me that his specimen is rightly indicated as a native of New Holland, having been collected by M. Verreaux.

Plate XII. fig. 1, *Lissotes Menalcas* of the natural size; 1 a, head and prothorax seen laterally; 1 b, the labrum; 1 c, the maxilla; 1 d, the mentum and extremity of the labial palpi; 1 e, the lacinia of the labium and the labial palpi.

Sect. II. Mandibulæ maris breviores, intus in medio dente crasso composito armatæ.

Sp. 16. *Lissotes Cancroides*.

Syn. *Lucan. Cancroides*, Fabricius, S. El. ii. 252, 18; Olivier, Ent. i. 1, 18, 12, pl. 4, fig. 11.

Dorcus Cancroides, Westw. Ent. Mag. v. p. 267

Ægus (B.) Cancroides, Burm. Handb. v. 402.

Habitat in Van Diemen's Land.

In Mus. Banks.

Obs.—Dr. Burmeister, probably in consequence of Mr. Mac Leay having observed under the description of his *Ægus chelififer*, "*Lucanum Cancroidem, Fabricii, haud examinavi, at generi Dorco potius pertinere videtur,*" has given this insect as identical with the *Æg. chelififer*, Handb. d. Ent. v. p. 403. Not only, however, does the specific name as well as its position as the first species in the genus prove that its mandibles agree with the generic description, "*porrectæ falcatæ inermes,*" but the figure given by Mac Leay of the maxillæ of *Ægus chelififer*, pl. I, fig. 7, E, is destitute of a corneous hook. I have not had an opportunity, it is true, of dissecting the typical unique specimen of *Cancroides* in the Banksian Collection, and can only therefore, from its close analogy with the following species, conjecture that the mando of the maxilla of the male is uncinated.

The Australian *Ægus chelififer* of MacLeay is doubtless more nearly allied to *Ægus acuminatus* and *lunatus*, Weber. This latter species from Sumatra is considered by Dr. Burmeister (l. c.) as identical with my *Æg. falciger* (not *fulviger*) described in the Ann. d. Sci. Nat. Sec. Ser. i. 118.

Sp. 17. *Lissotes subtuberculatus*, Westw.

Niger, prothorace, elytris tibiisque setosis; capite subopaco, vertice late depresso, tuberculo rotundato utrinque versus angulos anticos, prothorace glabro, antice in medio elevato, subtuberculato; elytris punctatissimis, punctis oblongis strias nonnullas irregulares vix formantibus.

Long. corp. cum mandibulis lin. $7\frac{1}{2}$.

Habitat in Nova Hollandia? In Mus. Chevrolat, Parisiis.

Caput transversum, angulis anticis oblique truncatis, postice canthum oculos parum incidentem formantibus; vertice subopaco, haud nitido, depresso, punctis paucis minutis tuberculoque rotundato utrinque versus angulos anticos notato. La-

brum paullo porrectum, fere semicirculare, setosum; mandibulæ maris capite breviores curvatæ, intus in medio dente lato obtuso e denticulis tribus tuberculoque dorsali truncato composito. Maxillæ maris unco corneo instructæ; mentum transversum, margine antice integro, angulis anticis rotundatis, disco punctato; setis labii et maxillarum ultra marginem anticum porrectis. Antennæ breves, clava tripartita. Oculi cantho antice parum incisii, capite utrinque pone oculos angulato. Prothorax latus, transversus, convexus, capite latior, lateribus subserratis, antice rectis, postice obliquis, angulis lateralibus posticis acutis, margine antico in medio in tubercula duo confluentia elevato lineaque tenui mediâ longitudinali impressa; disco glabro, tenue punctato, punctis minutis, et sensim versus marginem anticum evanescentibus. Elytra brevia, convexa, subovata, punctatissima, punctis oblongis sæpe confluentibus, nonnullis strias irregulares vix formantibus; lateribus luteo-griseo-setosis. Scutellum minutum, subtriangulare.

Pedes breves robusti; tibiæ anticæ extus 6-dentatæ, dente infero minimo, tibiæ 4 posticæ in medio denticulo unico armatæ. Corpus infra nigrum nitidum, pectore dense, abdomine vage punctatis.

Plate XII. fig. 2, *L. subtuberculatus* magnified; 2 a, labrum; 2 b, maxilla of male; 2 c, mentum.

A specimen of the male of this species, which, from its close similarity to *L. Cancroides*, appears to me to be certainly Australian, is also unique in the collection of M. Chevrolat. A rigid comparison with the typical specimen of *L. Cancroides* might possibly prove that this is but a variety of that insect with which it agrees in size. In M. Chevrolat's collection it bears a pink label.

Sp. 18. *Lissotes* ? *crenatus*.

Niger subnitidus, capite lato, antice depresso, angulis anticis oblique truncatis, oculis cantho antice paullo incisii, mandibulis falcatis, apice truncatis et denticulatis; prothorace capite parum latiori punctatissimo, elytrisque ovalibus, convexis, punctatissimis, punctis lineas vix regulares sæpe formantibus.

Long. corp. cum mandibulis lin. 7.

Habitat in Nova Hollandia.

In Mus. Hope (Mus. Gory), sub nomine "*Dorcus crenatus*, Latr. MSS. ? Voy. de Péron."

Niger, vix nitidus. Caput latum, tenuissime punctatum, punctis

versus oculos majoribus; angulis anticis oblique truncatis, postice canthum (oculos antice parum incidentem) formantibus, vertice antice depresso, depressione utrinque tuberculo rotundato versus basin mandibularum terminata. Antennæ breves, clava triarticulata: mandibulæ capitis longitudine, valde curvatæ seu falcatæ, basi intus in dentem obtusum producta, apice truncato-trigono et denticulato. Labrum parvum, angulato-porrectum. Maxillæ maris elongatæ, mandone acuto, haud tamen in uncum corneum producto. Mentum magnum, fere semicirculare, antice vix integrum nec emarginatum. Labium laciniis duabus divaricatis setosis, vix ultra marginem anticum menti porrectis. Prothorax transversus, convexus, margine antico haud elevato, recto, lateribus paullo rotundatis setosis; disco linea tenui media seu canali parum impresso, minute punctatus: scutellum minutum, semicirculare. Elytra brevia, ovalia, convexa, punctis minutis et irregularibus, lineas rectas longitudinales numerosas vix regulariter formantibus. Pedes mediocres; tibiæ anticæ 7-dentatæ, dente secundo maximo, 4to et 7mo minutis, tibiæ 2 posticæ (intermediæ carentes) denticulo submedio armatæ.

Plate XII. fig. 3, *Lissotes? crenatus* magnified; 3 a, head seen from beneath, with the mentum removed; 3 b, maxilla; 3 c, mentum and labium seen from within.

This interesting Australian insect formed a portion of the collections made by Péron in the South Seas, and is now in the museum of Mr. Hope, obtained from that of the late M. Gory, and inscribed with the manuscript name which I have adopted, and which was, I believe, proposed for it by M. Latrielle. It agrees with *L. Menalcas* in the form of its very curved mandibles, but its maxillæ are not armed with a curved spine; the mando is straight and acute. How far this character will, however, interfere with the sectional arrangement of the family proposed by Dr. Burmeister remains to be determined.

Sp. 19. *Lissotes obtusatus*.

Dorcus obtusatus, Westwood, Ent. Mag. v. p. 267.

Ægus (B) *obtusatus*, Burmeister, Handb. v. p. 402.

Habitat Van Diemen's Land.

Obs.—Both sexes of this species have the mando of the maxillæ furnished with a corneous hook; the mandibles of the male are very similar to those of *L. Cancroides*.

Messrs. Burmeister and Reiche have suggested the identity of

this species with *Dorcus curvicornis*, Latr. in Dej. Cat. from New Holland. The description of that species given by Boisduval, "Faune de l'Océanie," 2, p. 235—"Fuscus thorace transverso subpunctato; elytris punctatis; mandibulis exertis, dente crasso armatis; subtus piceus," is too slight to determine the identity, or even to warrant the retention of Latrielle's name if proved. My insect is not fuscous, the prothorax is as strongly punctured as the head, and I can scarcely think that Latreille would have applied such a name as *curvicornis* to the species.

Sp. 20. *Lissotes reticulatus*.

Lucanus reticulatus, Westw. in Trans. Ent. Soc. iv. p. 275, pl. xx. fig. 4.

Ægus (B.) *Cicatricosus*, Burmeister, Handb. v. p. 403.

Dorcus squamidorsis, White, in Zool. of Erebus and Terror, p. 9, pl. ii. fig. 2.

Habitat New Zealand.

Obs.—This species, with *L. Cancroides* and *obtusatus*, placed by Dr. Burmeister as the second section of the genus *Ægus*, belong, in fact, to a different sub-family, having the mando of the maxillæ in both sexes armed with a corneous hook. The mandible and maxilla of this sex in *L. reticulatus* are represented in our Plate XII. figs. 9 *a* and 9 *b*. It differs from the three preceding species, not only in its geographical position, but also in the patches of pile on the upper surface of the body.

Sp. 21. *Dorcus? luteus*, West. (Plate XII. fig. 4.)

Obscure niger, dense punctatus, punctis luteo-squamosis, elytris impresso-striatis, interstitiis punctis minutis impressis; mandibulis brevibus, sub-trigonis, intus dente obtuso bifido instructis; oculis omnino septo bipartitis.

Long. corp. cum mandibulis lin. 9 ($\frac{3}{4}$ unc.).

Habitat in Nova Hollandia.

In Mus. Hope, olim Gory.

Caput mediocre, punctatum, fronte sub-convexo, utrinque tuberculo instructo; angulis lateralibus anticis capitis obliquis, postice in septum (oculos omnino dividitibus) productis, lateribus pone oculos haud angulatis; labrum transversum, brevissimum, antice emarginatum setosum: mandibulæ capite breviores subtrigonæ, apice intus curvato acuto; margine interno in medio dente bifido obtuso armato. Antennæ breves, articulo 7mo intus acute producto, clava 3-articulata: max-

illæ dense setosæ, mandone inermi. Mentum transversum, punctis magnis impressum, angulis anticis rotundatis; antice emarginatum, laciniis labii et palpis labialibus (apice articuli ultimi excepto) occultis. Prothorax capite multo latior; lateribus rotundatis, angulis posticis acutis, disco convexo punctato lineaque media abbreviata impressus; scutellum breve semi-rotundatum. Elytra ovalia, prothoracis latitudine, convexa; singulo striis sex longitudinalibus impressis, interstitiis striarum punctis minutis (sæpius triplici serie dispositis) impressis; punctis omnibus pilis minutis luteis vestitis, inde insectum coloris lutei apparet. Pedes antici tibiis serrulatis dentibusque sex majoribus armatis; intermediis dente medio alteroque minuto subbasali; posticis dente medio unico. Corpus infra nigrum, magis nitidum, punctatum.

Plate XII. fig. 4, *Dorcus? luteus*, magn. auct.; fig. 4 a, labrum and mandibles; 4 b, extremity of antennæ; 4 c, eyes divided by the canthus; 4 d, maxilla; 4 e, mentum seen from within the mouth, showing the labial lacinia and palpi.

This Australian species is also in the Hopean collection obtained from M. Gory. The eyes are entirely divided by the lateral septum, the maxillæ unarmed, the seventh joint of the antennæ pointed in the inside and setose. The specimen appears to me to be a male, notwithstanding the small size of the mandibles. Want of certainty, however, in this respect, as well as ignorance of the opposite sex, and uncertainty as to the structure of the mandible of its maxilla, prevents my assigning the present species to its true genus. It is here, therefore, only placed provisionally in the genus *Dorcus*.

Sp. 22. *Figulus Lilliputanus*, Westw. (Plate XII. fig. 5.)

Piceo-castaneus, nitidus, capite supra irregulari, angulis lateralibus postice porrectis; mandibulis brevibus, intus dente obtuso armatis; prothorace subquadrato, lateribus dense punctatis discoque impressione abbreviata notato; elytris regulariter punctato-striatis.

Long. corp. fere lin. 4 ($\frac{1}{3}$ unc.).

Habitat apud Adelaidam, Novæ Hollandiæ.

In Mus. Westwood.

Omnium *Lucanidarum* species minima, *Clivinam fossorem* simu-

lans. Oblongus, subdepressus, nitidus, totus piceo-castaneus. Caput transversum, punctatum, supra irregulare, scilicet tuberculis rotundatis transversim positis inter marginem anticum et medium verticis; angulis lateralibus anticis obliquis, postice directis et septum planum, margine elevato, oculos dividentem, formantibus; capite pone oculos, in collum depressum, angustato. Labrum breve, transversum, porrectum. Mandibulæ capite breviores; apice subacutæ curvatæ; intus in mare dente crasso sub-obtuso armatæ; fœminæ paullo minores, apice denteque interno acutioribus.

Maxillæ in utroque sexu parvæ, mandone corneo uncinato; mentum subquadratum, antice paullo latius, angulis anticis rotundatis margine antico parum emarginato, labii laciniis palpisque labialibus fere omnino occultis. Prothorax fere quadratus, lateribus sub-rectis, angulis anticis rotundatis, dorso parum convexo, undique punctis minimis vage impresso, in medio sulco parum profundo grosse punctato impressus lateribusque punctatis. Elytra oblonga subconvexa, postice rotundata; prothoracis latitudine; regulariter 6-punctato-striata, interstitiis lævibus, nitidis, lateribusque punctatis. Pedes breves, tibiis anticis in mare dilatatis planis, extus subsinuatis (an semper?); in fœmina extus 6-dentatis, dente infero minimo, tibiæ 4-posticæ dente medio intermediisque denticulis duobus subbasalibus armatis.

Plate XII. fig. 5, *Figulus Lilliputanus*, magn. anct.; 5 a, maxillæ; 5 b, mentum.

Sp. 23. *Dorcus Pelorides*, Westw.

Latus, niger, nitidus, sub-convexus, lævis; mandibulis capite plus duplo brevioribus, capite utrinque tuberculo parvo elevato, lateribus capitis antice obliquis tuberculatis, pedibus brevibus gracilibus.

Long. corp. cum mandibulis unc. 1.

Habitat in Nova Hollandia, Moreton Bay.

In Mus. Britann.

Totus niger, nitidus, facie omnino *Peloris Blaptoidis*; sub lente punctis minutissimis impressus. Caput convexum, antice emarginatum et depressum, sub lente tenue punctatum, angulis anticis oblique truncatis; postice bituberculatis, tuberculo postico canthum (oculum omnino dividentem) formante, lateribus pone oculos etiam in angulum productis. Man-

dibulæ perbreves, subtrigonæ, supra planæ marginatæ punctatæ, apice acutissimo, intus denticulis duobus parvis armatæ. Maxillæ minutæ, mandone inermi. Antennæ breves, clava triarticulata, articulo ultimo apice truncato. Prothorax transversus capite paullo latior, lateribus rotundatis, tenuè marginatis et punctatis, intus in medio impressione parum profunda, punctoque utrinque approximato; disco lævi convexo. Elytra prothoracis latitudine convexa glabra, apicibus et lateribus tenuissime punctatissimis, disco lineis nonnullis longitudinalibus vix distinctis. Pedes breves, tibiæ anticæ extus 5-denticulatæ, dentibus duobus anticis majoribus. Tibiæ 4 posticæ graciles serrulatæ, pone medium dente minuto armatæ.